WHAT IS CLAIMED IS:

1. A thin-film magnetic head provided on a support, the thin-film magnetic head comprising:

an electromagnetic transducer for writing and a magnetoresistive device for reading which are disposed on the support;

an overcoat layer disposed on the electromagnetic transducer and the magnetoresistive device on a side away from the support; and

a heating element provided in the overcoat layer, the heating element generating heat when energized.

2. A thin-film magnetic head according to claim 1, wherein the electromagnetic transducer is disposed between the overcoat layer and the magnetoresistive device.

3. A thin-film magnetic head according to claim 1, wherein the electromagnetic transducer overlies the magnetoresistive device on the support,

wherein the overcoat layer covers the electromagnetic transducer, and

wherein the heating element is located farther from the support than the electromagnetic transducer.

4. A thin-film magnetic head according to claim 1, further comprising a facing surface to oppose a recording medium, the electromagnetic transducer and

the magnetoresistive device being exposed on the facing surface.

5. A thin-film magnetic head according to claim 4, wherein the heating element is separated from the facing surface.

6. A thin-film magnetic head according to claim 4, wherein the heating element extends substantially perpendicularly to the facing surface.

7. A thin-film magnetic head according to claim 4, wherein the heating element is placed so as to cause at least either of the electromagnetic transducer and the magnetoresistive device to approach the recording medium when energized.

8. A head gimbal assembly comprising:

a support;

a thin-film magnetic head provided on the support; and

a gimbal for securing the support,

the thin-film magnetic head having:

an electromagnetic transducer for writing and a magnetoresistive device for reading which are disposed on the support;

an overcoat layer disposed at an opposite side of the electromagnetic transducer and the magnetoresistive device from the support; and

a heating element provided in the overcoat layer, the heating element generating heat when energized.

9. A hard disk drive comprising:

a support;

a thin-film magnetic head provided on the support; and

a recording medium facing the thin-film magnetic head,

the thin-film magnetic head having:

an electromagnetic transducer for writing and a magnetoresistive device for reading which are disposed on the support;

an overcoat layer disposed at an opposite side of the electromagnetic transducer and the magnetoresistive device from the support; and

a heating element provided in the overcoat layer, the heating element generating heat when energized.